

The invention in which an exclusive right is claimed is defined by the following:

1. A method for lossless editing of a media object, comprising the steps of:

(a) accessing data defining the media object to produce a representation of the media object;

(b) enabling a user to selectively edit the representation of the media object by applying a modification to the representation;

(c) rendering a modified media object in accord with the modification to the representation; and

(d) storing metadata that define the modification applied to the representation in association with the media object, without modifying the data that define the media object.

2. The method of Claim 1, wherein the media object comprises an image, and wherein the modification comprises the step of cropping the representation of the media object, said metadata defining a size and a position of a crop outline on the representation of the image to indicate limits of a cropped image.

3. The method of Claim 2, further comprising the steps of:

(a) enabling the user to again selectively edit the representation of the media object, by applying a further modification that changes the limits of the cropped image on the representation of the media object;

(b) updating the metadata to define the modification by indicating new limits of the cropped image; and

(c) rendering the modified media object in accord with the further modification.

4. The method of Claim 2, wherein the image is stored in a Joint Photographic Experts Group (JPEG) format.

5. The method of Claim 1, wherein the step of storing the metadata comprises the step of storing a stream of the metadata in a substorage of an object linking and embedding (OLE) file.

6. The method of Claim 2, wherein the step of rendering comprises the step of rendering the cropped image without portions of the representation that lie outside the limits of the cropped image.

7. The method of Claim 6, further comprising the step of compressing data for a portion of the media object within the limits of the cropped image.

8. The method of Claim 2, further comprising the step of storing the cropped image as a JPEG stream of data in a substorage of an OLE file.

9. The method of Claim 8, wherein the OLE file defines a collection of one or more images.

10. The method of Claim 2, further comprising the step of providing input to the metadata for storage that defines at least one of an image title, an image number, an image rotation, an image width, and image height, and an image source file location for the media object.

11. The method of Claim 2, further comprising the step of perceptibly differentiating a first portion of the representation of the image from a second portion of the representation of the image, wherein the first portion and second portion are demarcated by the crop outline.

12. A machine-readable medium having machine instructions for performing the steps of Claim 1.

13. A machine-readable medium having machine instructions for performing the steps of Claim 2.

14. A system for lossless editing of a media object, comprising:
- (a) a processor;
  - (b) a display in communication with the processor;
  - (c) an input device in communication with the processor; and
  - (d) a memory in communication with the processor, said memory storing the media object and machine instructions that cause the processor to:
    - (i) access data defining the media object, to produce a representation of the media object;
    - (ii) enable a user to employ the input device to selectively edit the representation of the media object by applying a modification to the representation;
    - (iii) render a modified media object in accord with the metadata; and
    - (iv) store metadata that define the modification applied to the representation in association with the media object, without modifying the data that define the media object.

15. The system of Claim 14, wherein the media object comprises an image, and wherein a user is enabled to crop the representation of the media object, said metadata defining a size and a position of a crop outline on the representation of the image on the display, to indicate limits of a cropped image on the representation of the media object.

16. The system of Claim 15, wherein the machine instruction further cause the processor to:

- (a) enable a user to employ the input device to again selectively edit the representation of the media object, by applying a further modification that changes the limits of the cropped image on the representation of the media object appearing on the display;
- (b) update the metadata to define the modification by indicating new limits of the cropped image; and
- (c) render the modified media object on the display in accord with the further modification.

17. The system of Claim 15, wherein the image is stored in the memory in a Joint Photographic Experts Group (JPEG) format.

18. The system of Claim 15, wherein the metadata are stored in the memory as a stream of data in a substorage of an object linking and embedding (OLE) file.

19. The system of Claim 15, wherein the machine instructions further cause the processor to render the cropped image without portions of the representation that lie outside the limits of the cropped image.

20. The system of Claim 19, wherein the machine instructions further cause the processor to compress data for a portion of the media object within the limits of the cropped image.

21. The system of Claim 15, wherein the machine instructions further cause the processor to store the cropped image as a JPEG stream of data in a substorage of an OLE file.

22. The system of Claim 15, wherein the OLE file defines a collection of one or more images.

23. The system of Claim 15, wherein the machine instructions further cause the processor to provide input to the metadata for storage in the memory, wherein said input defines at least one of an image title, an image number, an image rotation, an image width, and image height, and an image source file location for the media object in the memory.

24. The system of Claim 15, wherein the machine instructions further cause the processor to perceptibly differentiate a first portion of the representation of the image from a second portion of the representation of the image, wherein the first portion and second portion are demarcated by the crop outline.

25. A method for lossless modification of a media object, comprising the steps of:

- (a) accessing data defining the media object to produce a representation of the media object;
- (b) enabling a user to perform a first modification of the representation of the media object;
- (c) rendering the first modification of the representation;
- (d) storing metadata that define the first modification applied to the representation of the media object, without modifying the data that define the media object;
- (e) subsequently accessing the media object and metadata;
- (f) rendering the representation of the media object as defined by the metadata;
- (g) enabling the user to further modify the first modification of the representation of the media object, to produce a second modification; and
- (h) storing metadata that now define the second modification of the media object, without modifying the data that define the media object.

26. The method of Claim 25, wherein the representation of the media object comprises one of a static image, a video image, and an audible sound.

27. The method of Claim 25, wherein the modification comprises at least one of the steps of cropping, rotating, and trimming an image that comprises the representation of the media object.

28. The method of Claim 25, wherein the metadata comprises dimensions of a crop outline.

29. The method of Claim 25, further comprising the step of perceptibly differentiating a first portion of the representation of the media object from a second portion of the representation of the media object to aid the user to one of perform the first modification and further modify the first modification.

30. A machine-readable medium having machine instructions for performing the steps of Claim 25.

31. A system for lossless modification of a media object, comprising:

- (a) a processor;
- (b) an input device in communication with the processor; and
- (c) a memory in communication with the processor, said memory storing data defining a media object and machine instructions that cause the processor to:
  - (i) access the data defining the media object to produce a representation of the media object;
  - (ii) enable a user to employ the input device to perform a first modification of the representation of the media object;
  - (iii) render the first modification of the representation;
  - (iv) store metadata that define the first modification applied to the representation of the media object in the memory, without modifying the data that define the media object;
  - (v) subsequently access the media object and metadata in the memory;
  - (vi) rendering the representation of the media object as defined by the metadata;
  - (vii) enabling the user to further modify the first modification of the representation of the media object, to produce a second modification; and
  - (viii) storing metadata that now define the second modification of the media object in the memory.

32. The system of Claim 31, wherein the representation of the media object comprises one of a static image, a video image, and an audible sound.

33. The system of Claim 31, wherein the modification comprises one of cropping, rotating, and trimming an image that comprises the representation of the media object.

34. The system of Claim 31, wherein the metadata comprises dimensions of a crop outline.

35. The system of Claim 31, wherein the machine instructions further cause the processor to perceptibly differentiate a first portion of the representation of the media object from a second portion of the representation of the media object to aid the user to one of perform the first modification and further modify the first modification.

36. A machine-readable medium having a data structure for lossless modification of a media object comprising:

- (a) metadata defining a modification that is to be applied when rendering data defining a media object; and
- (b) the data defining the media object.

37. A machine-readable medium having a data structure for a collection of media objects comprising a substorage, wherein the substorage comprises data defining a media object; and metadata defining a modification that is to be applied to a representation of the media object when the data defining the media object is rendered.